DOCUMENT RESUME

ED 209 579 CG 015 532

AUTHOR Prevert, Rita; And Others
TITLE The Relationship of Sex Education to Sexual Behavior, Attitudes, and Knowledge.
PUB DATE Apr 81
NOTE 23p.; Paper presented at the Annual Meeting of the American Educational Research Association (65th, Los Angeles, CA, April 13-17, 1981).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Attitude Measures; Attribution Theory; Change Agents; *College Students; Ethical Instruction; Higher Education; *Sex Education; *Sexuality; *Student Attitudes; *Student Behavior; Student Educational Objectives

ABSTRACT

Research has not identified any consistent relationships between participation in high school sex education programs and the sexual attitudes and behaviors of college students. Results of preliminary research into the relationship of sex education and developing sexuality have shown few significant correlations. A sample of college students completed the Sexual Experience Questionnaire while another sample completed the Sexual Knowledge Test. Results showed that students rated themselves as having a fair knowledge of sexuality; however, their overall test performance ratings indicated that they may not have been as knowledgeable as they believed. The findings suggest that the current controversy about sex education may be misplaced, and that further research is needed before any conclusions can be drawn. (JAC)

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THE RELATIONSHIP OF SEX EDUCATION TO SEXUAL BEHAVIOR, ATTITUDES, AND KNOWLEDGE

RITA FREVERT

THOMAS ANDRE

TIMOTHY BENDER

IOWA STATE UNIVERSITY

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CG 015532

PRESENTED AT THE ANNUAL MEETING OF THE AMERICAN EDUCATIONAL RESEARCH ASSOCIATION, LOS ANGELES, 1981

The Relationship of Sex Education to
Sexual Behavior, Attitudes, and Knowledge.

The issue of sex education in the schools has been a controversial one in our society. A round of controversy is currently underway. Proponents of sex education argue that the level of teenage pregnancy, the level of divorce, and the level of anxiety about sexual matters require that children and adolescents receive training in sexual matters. Opponents of sexual education have charged that training in sexuality belongs in the family, that sex education courses will promote sexual behavior among youth, and that sex education courses are likely to present youth with information that they are too young to handle and that such training may promote values that are contradictory to parental values. While most parents probably favor some form of school training in the nature of human reproduction, it is difficult to find agreement of much else beyond this. Teenagers clearly want sex educaton; and indicate that there are important topics on which they receive little reliable information.

Much of the discussion of sex education has been emotional and political in nature and has not been informed by empirical research on the effects of sex education. In part, this is due to the sensitive nature of the debate, and in part due to the limits of the available research. Most of the research on sex education has focused on a very narrow definition of sex education and has examined only short term effects of sex education (Kirby, Alter, and Scales, 1979). The typical study of sex education has defined sex education as the taking of a particular course in school or a workshop or retreat. Most of the research has involved comparing participants in the experience to non participants (Kirby, et al, 1979). The design of this research has typically involved the non-equivalent control group design. Other research has simply involved pre-post test kinds of comparisons on participants only (eg. Gunderson and Mccary, 1980).

This research has yielded the following kinds of findings. Scores on knowledge tests given immediately after the course have favored the subjects receiving the educational treatment (Kirby et al 1979). Attitudes following the course have generally become more liberal and tolerant (Kirby, et al 1979). Effects on behavior have generally been minimal; most studies have found no differences between pre-post comparisons. One exception was a pre-post study by Shipley (1974) which reported an increase in the use of birth control.

There are two major problems with these research studies. Sex education is more involved than formal courses in schools. Individuals learn about sex in a variety of contexts, from parents, peers, individual reading, trial and error, as well as from formal experiences in schools. The

influence of a formal educational experience is likely to be moderated by other sex education the person has received. Research on sex education should consider the effects of both formal and informal experience.

The second problem with the available research is that only short term effects have been examined. The major policy questions on sex education are concerned with longer term effects. For example, while participants in a particular experience might display end-of-experience knowledge or attitude changes, will such changes last any length of time beyond the course? If a year after completing a course, participants and non-participants are indistinguishable in terms of knowledge or attitude, is it worth the political and social controversy as well as the financial expense to continue the course? Similarly if there are no behavioral changes as a result of a course, if birth control is not used more often, or if the frequency of pre-marital coitus is not different then of what value is a particular course? For policy decisions, information about more long term consequences of formal sex educational experience is required.

The purpose of the present research was to examine the influence of formal sex education on sexual behavior, attitudes, and knowledge. We view the present research as preliminary data collection for a program of research concerned with this issues. Our approach thus far has been quite unsophisticated and straighforward. We have reasoned that if formal sex education experiences make a difference in attitude, knowledge or behavior, then we ought to be able to detect those differences between college students who have had and have not had formal sex education. Thus, if we question college students about their formal and informal sex education, their sexual behavior, attitudes, and knowledge, then we would expect to find that the degree to which an individual had received formal sex education would covary with behavior, attitude or knowledge. Obviously, finding such relations in a retrospective study would not establish a causal relationship, but would certainly justify further research into a causal connection. Since conducting a study that could detect true causal relationships would be very expensive, t certainly seemed worthwhile to pursue the present approach first. A failure to detect relationship in the present study would raise serious questions about the long term influence of formal sex education on later sexuality and would have implications for educational policy.

Our research is currently underway. The present paper reports preliminary analyses of data collected during Spring 1980, and Fall 1980. We want to emphasize the preliminary nature of these findings. Our analysis has not yet been very sophisticated and there are relationships that we have not yet explored. We discuss future directions below. We believe, however, that these preliminary findings may be of interest and we certainly hope they might stimulate related research into the issue.

Method

Participants

There were two seperate samples of subjects drawn in the present research. Both samples were drawn from similar populations. Sample 1 was drawn during the Spring 1980 quarter at Iowa State University. Sample 2 was drawn during the Fall 1980 quarter at ISU. Both samples consisted of male and female undergraduate students taking introductory level psychology courses at ISU. Table 1 contains demographic descriptive information on the subjects. As can be seen the subjects were relatively young, mean age 19 to 20. They were predominantly of Protestant or Catholic religious background. Pluralities were students in the College of Science and Humanities (majorities among the females) and came from small rural towns. The subjects responded to announcements of the study that were posted on the standard extra-credit experiment bulletin board. The announcements described the nature of the study and the questionnaires. Subjects received extra course credit for participating.

Materials.

Five questionnaires, related to sexual experience, attitudes, education, knowledge, and satisfaction were developed for use in this study. These questionnaires are described below.

Sexual Experience Questionnaire:

The first questionnaire consisted of a 149 item instrument that asked students about their heterosexual and homosexual behavior. For each of the behaviors: light kissing, deep kissing, light petting, heavy petting, genital stimulation of another, genital stimulation by another, coitus, fellatio, and cunnilingus, students were asked a series of questions. These are listed below.

1. I have engaged in ------- with a member of the opposite sex.
2. I have been erotically aroused through -------.
3. The age at which I first engaged in ------- was:
4. I engage in ------- with a member of the opposite sex (frequency choices):
5. When I was engaging in ------ most often, I ------- (frequency choices)
6. When I was engaging in ------- most often, I was about age --------.
7. I have engaged in ------- with about ---- members of the opposite sex.
8. I generally feel guilty when or after I engage in --------.
9. In the past I have felt guilt about ------- with a member of the opposite sex.

10. My parents would have been upset and/or shocked if they found out I had engaged in ------- in high school.
11. My parents would be upset and/or shocked if they found out I engage in ------- now.
12. Even if I don't reach orgasm, I generally receive pleasure from -------.
13. I would probably engage in -------the first time I went out with a member of the opposite sex.

On items that did not have yes/no, frequency, or age choices, subjects responded on a 9 point Likert type scale in which a response of 1 meant ABSOLUTELY TRUE OF ME and a response of 9 meant ABSOLUTELY UNTRUE OF ME.

Items 125-148 on the scale asked about homosexual behavior. Subjects were asked if they had engaged in the behaviors above with a member of the same sex and if the behaviors were still ongoing. Finally subjects were asked to indicate their primary sexual orientation was homosexual, heterosexual, or bisexual.

Sexual Attitude Questionnaire

This questionnaire was designed to measure the degree to which subjects held liberal or conservative sexual attitudes. Subjects were asked to rate, on a five point scale, whether their personal feelings for the sexual behaviors listed above as well as masturbation, mutual oral sex, anal intercourse, and group sex. The five point scale ranged from 1 = strong negative feeling to 5=strong positive feeling. In addition, subjects were asked to rate the appropriateness of these behaviors, except for masturbation, for opposite sexed partners who were: 1. casual friends 2. in love, engaged, and/or who had a deep emotional commitment, and 3. married. The appropriateness scale ranged from 1 = very inappropriate to 5 = very appropriate. Items 48 and 49 asked subjects to rate their personal feelings about homosexual behavior between males and females respectively.

Sex Education Questionnaire

The Sex Education Questionnaire consisted of 234 items in 6 parts. Each of the first four parts asked subjects to rate on a five point scale how much information they received on a variety of sexual topics from their parents, school, peers, and own reading, respectively. The scale ranged from 1. no information was provided on the topic, 2. minimal information was provided on the topic, 3. fair amount of information was provided on the topic, 4. considerable information was provided on the topic, to 5. complete and thorough information was provided on the topic. The topics were:

1. reproductive physiology
2. menstruation
3. syphillis
4. gonorrhea
5. herpes

6. yeast infections
7. other venereal diseases
8. abortion
9. birth control pills
10. condoms
11. diaphrams
12. other birth control methods
13. anatomy of the male sexual organs
14. anatomy of the female sexual organs
15. ejaculation
16. nocturnal emission
17. masturbation
18. vibrators
19. male homosexuality
20. female homosexuality
21. intercourse (general description)
22. intercourse techniques
23. deep kissing
24. petting
25. oral sex
26. sexual morality
27. interpersonal relationships in sexuality
28. premarital intercourse
29. frigidity
30. impotence
31. sexuality in marriage
32. extramarital sex
33. foreplay techniques
34. bisexuality
35. orgasm (female)
36. orgasm (male)
37. physiology of sexual arousal
38. interpersonal relations in marriage
39. divorce
40. premature ejaculation
41. sexual fantasy
42. aphrodisiacs

Part 5 of the questionnaire asked subjects to rate their self-knowledge on these topics on a 5 point scale ranging from 1 = no knowledge of the topic to 5 = considerable knowledge of the topic. Part 6 asked subjects to report the number of high school courses, high school partial courses, retreats, college courses, and partial college courses they had had which solely taught or included sexual material.

Sexual Satisfaction, Birth Control And Veneral Disease Questionnaire.

This questionnaire asked questions about the use of birth control, the incidence of venereal disease, and the degree of satisfaction with current sex life and partner. In addition, demographic information was requested. There were 86 items on the questionnaire.

Sexual Knowledge Test

This test consisted of a 70 item test of sexual knowledge. The items were divided into 2 parts. Part 1 consisted of 22 4-choice multiple choice items in which subjects had to identify parts of anatomical diagrams of male and female genital and reproductive organs. Part 2 consisted of items 23-70. These were true false items that covered facts about sexuality. They were selected from statements made in a college level textbook on the psychology of human sexuality.

Procedure:

The study was conducted in a large college auditorium classroom. At scheduled times, subjects entered the classroom, were given a packet of questionnaire booklets, and completed them. Subjects recorded their responses on machine readable answer sheets. Subjects required from 1.5 to 2 hours to complete the questionnaires. Questionnaires were given in the order listed above. Approximately one hour into the session, subjects were given permission to take a break if they wished. Several sessions were conducted over a two week period in the spring and in the fall.

Results

Measures.

For the purposes of the present paper only a subset of the available data is discussed. For each subject, the totals of responses to the parent education, self education, school education, self-rated knowledge, and number of high school courses and total sex education courses parts of the Sex Education Questionnaire were computed. The knowledge test was scored and yielded three scores: anatomy section total, general section total, and overall total. The attitude questionnaires were scored to yield 4 scores per subject: 1. attitudes about self, 2. attitudes about casual friends, 3. attitudes about persons in love, and 4. attitudes about married individuals. A measure of sexual satisfaction was computed from the relevant parts of the Sexual Satisfaction Questionnaire.

Correlations with behavior and attitude scores

Only preliminary analysis of the data have been completed to this point. Tables 2 and 3 contain the correlations between the sex education variables mentioned above and incidence of sexual behavior, sexual attitude variables, and sexual knowledge variables for the Spring and Fall samples respectively. The sexual behavior incidence variable are binary variables where 1 indicates the subject has engaged in the behavior and 0 indicates the subject had

not engaged in the behavior. As can be seen, the sex education variables displayed little or no relationship with either sexual attitude or behavior. Considering the 98 correlations on each table that involved behavior or attitude variables, only 6 of 98 correlations were significant in the Spring sample, and only 14 of 98 were significant in the Fall sample. Moreover, there appeared to be little consistency across samples , only 1 of the significant correlations was signficant in both samples. That one correlation occured for total number of sex education courses by attitudes about self for males. These variables correlated -.25 in the spring sample and +.36 in the fall sample. Thus, while the relationship was statistically significant in both samples, the direction of relationship changed. The limited number of significant correlations found and their inconsistency across samples suggested that the variables were at best only weakly related, if at all.

Correlations with knowledge scores.

Tables 2 and 3 also present the correlations between the education variables and the sex knowledge test scores. Some relationships emerged that are worth discussing. For males, number of high school courses and number of total courses taken correlated significantly with knowledge scores in both samples. Unfortunately, the correlation was negative in the Spring sample and positive in the Fall sample. In general, correlations tended to be negative in the Spring sample for both males and females and positive in the Fall sample. It is not clear what would produce such a reversal. This point is disussed below.

One interesting pattern emerged; for females, degree of rated parent education correlated negatively with performance on the knowledge anatomy section in both samples. The correlation is weak, -.20 in the Spring and -.22 in the Fall, but it is suggestive. Perhaps women who receive much information from their parents are likely to receive misinformation.

Intercorrelations of education variables.

Tables 2 and 3 also present the intercorrelations of the education variables. As can be seen, the correlations tended to be significant and positive with minor exceptions. Of particular interest were the correlations between high school courses and self-rated knowledge received from school. These variables measure the same underlying construct. The correlations support the construct validity of that concept.

Intercorrlations of sexual behavior variables

Table 4 presents the intercorrelations of the sexual behavior variables. Only statistically significant Rs are presented. In general, these variables were significantly related. Individuals who had experienced one

form of sexual behavior were more likely to have experienced other forms. Correlations involving the light petting variable were weakest. In part, the low values of these correlations may be do to restricted range as most subjects had experienced light petting.

Correlations of attitude variables

Table 5 presents the intercorrelations of the attitude variables. In general, the variables intercorrelated reasonably well. The exception was that attitudes held for self do not correlate with attitudes held for other people. Also interesting was that individuals with more liberal attitudes reported higher levels of satisfaction. That relationship may be moderated by the relationship between satisfaction and behavior. Attitude/behavior correlations are described below.

Correlations of attitude and behavior

Table 6 contains the correlations of attitude variables with the behavioral incidence variables. Again, except for the attitude about self, behavior and attitude correlated moderately well. Individuals who reported greater sexual involvement expressed more liberal attitudes. In addition, satisfaction with current sex life was correlated with sexual activity except for females in the Spring sample.

Frequencies

Table 7 contains the percentage of subjects who reported engaging in various sexual behaviors. The percentages ranged from over 90% of the sample who reported engaging in light and heavy kissing to 50% of the females and 66% of the males who had engaged in coitus. Less than 10% of the males and females reported engaging in homosexual behavior. Considering that the majority of the sample is age 19 or older, these percentages are relatively conservative by national percentages. However, considering that the sample was primarily from rural Iowa, these percentages did not seem unreasonable.

Percentage of subjects holding particular attitutes.

Table 8 lists the percentage of students who agree or strongly agree that particular behaviors are appropriate for themselves, casual friends, and people in love. In general, the data were consistent with other findings. Males were more liberal than females. A majority of the sample viewed serious sexual behavior as inappropriate for casual friends, but saw most sexual behavior as appropriate for persons in love. One interesting finding concerned masturbation. The subjects were generally more negative

towards masturbation than towards heterosexual behavior. Apparently stereotypes about the negative aspects of masturbation still exist.

discussion

Before discussing the present results, we wish to emphasize that we view this study as preliminary research into the relationship of sexual education to developing sexuality. Our analyses of the data are far from complete; we have a similar data set that was collected during Winter 1981 that has not been analyzed; and we intend to collect more data. Thus, any conclusions we draw are very tentative. We regard the current research as developing a base for research to follow.

The major purpose of the present research was to determine if degree of formal and informal sex education would relate to the sexual behavior, attitudes, or knowledge of college students. Our approach was relatively unsophisticated an straighforward. We assumed that if sex education had an effect, college students who had higher degrees of sex education would display different levels of behavior, attitudes, or knowledge than would students with less education. At this point, we have examined these issues by looking at the correlations between measures of behavior, attitude, knowledge, and measures of the degree of formal and informal sex education.

With respect to the relationships of education to behavior and attitude, our results seemed fairly clear. There did not seem to be any consistent relationships that emerged in samples of students taken during the spring and fall of 1980. A few correlations were significant in each sample, but these were not consistent from one sample to the other. These findings are consistent with those of Spanier (1976). Spanier attempted to predict current levels of sexual behavior in college students using data about sex education and current attitudes held by the person and others around him/her. Sex education did not relate to current sexuality; rather the attitudes and behavior of the current peer group seemed to be more predictive of current sexuality.

With respect to knowledge, the results were less clear. In the spring sample, knowledge scores were negatively related to measures of the degree of education, although most correlations were not significant. Significant negative correlations were found between number of courses taken and knowledge scores for males. Relationships for females tended to be negative but non-significant. For the Fall sample, correlations were generally positive, and significant positive correlations were found between courses taken and knowledge scores. We can generate no meaningful explanation for the negative relationship found in the original sample. It might be argued that our knowledge test which was based upon a college level sexuality text, did not assess information covered in high school sex education courses. The negative correlations occured for both the

anatomy and general knowledge sections. It seems likely that anatomy would be adequately covered in high school courses.

This sample to sample variation in education/knowledge correlations suggests that a strong relationship does not exist in the population. At the present time, we are not willing to conclude that prior sex education relates to later sexual knowledge. Our data seems to suggest the opposite; ie, that there is not relationship; but we believe the issue should be examined further. We have data from a sample collected during Winter 1981 that should help to resolve this issue.

Overall performance of the knowledge test is of some concern. Students did reasonably well on the anatomy section, but did less well on the general knowledge section. Since students rated themselves as having a fair knowledge of sexuality on the self rating questionnaire, these data may suggest that students know less about sex than they think they do.

The present results, to the extent they can be generalized, suggest that some of the controvery about formal sex eduction in the schools is misplaced. If sex education were to make as big a difference as either proponents or opponents have suggested, then it seems to us that we should have detected stronger behavior, attitudinal or knowledge effects. Our data fail to support any strong effects. We think that both proponents and opponents of formal sex education might better use their energies in an empirical analysis of sex education effects than in data free debate.

Limitations

Sample:

Obviously, the present data suffer from many limitations. Our samples have been small and composed of volunteers. It seems likely that persons who are willing to participate in a study dealing with sexually explicit questions might be different than persons not willing to volunteer. Our sample was composed primarily from students from Iowa who were attending Iowa State University. Iowa maintains two major state universities, Iowa State has the reputation of being the more conservative of the two. The midwestern region tends to be more conservative than the northeast or west. These facts suggest that our sample was composed of fairly conservative students. Their levels of sexual behavior and attitudes seem consistent with this view. Thus our results are probably best generalized to conservative populations.

Instruments:

Since the instruments used in this study were generated by us, questions can raised about their suitability. We have not yet completed psychometric evaluations of the instruments. However, the patterns of

correlations that emerge and the levels of reported behavior tend to be consistent with our expectations and previous research. The behavioral measures and the attitude measures correlated among themselves. Attitudes correlate with behavior, more liberal persons report higher levels of behavior. The education measures intercorrelate. These patterns suggest that our instruments are tapping the underlying constructs.

Directions for future research

It should be noted that the present study addressed the quantity or amount of sex education provided by various sources. The present results stand mute on the issue of the affective tone of the sex education the subjects received. With hindsight, it seems likely that the affective tone with which sexual education is presented could be more important than the amount of sex education provided. Adolescents who learn about sex in a negative context may behave differently that adolescents who acquire sexuality in the context of open and positive attitudes. In our winter sample, we changed our instruments to examime this latter issue.

We believe that research on sex education is in its infancy. We think the issue is important. Adolescents learn about sex in formal and informal settings. These learning experiences should relate to their later sexual behavior, attitudes, and knowledge in ways direct and indirect. Determining how sexual learning influences later sexuality is an exciting research challenge.

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Table 1. Demographic Characteristics of Sample

	Spring 80		Fall 80	
Age (% each age)*				
Age	M	F	M	F
18	10	20	22	30
19	36	42	32	29
20	26	23	19	18
21	13	6	11	5
22	3	5	9	2
23	4	0	3	2
24	3	0	0	0
25	3	0	3	2
26 & Over	1	0	1	2
Mean Age (Years)	20.1	19.3	19.8	19.1
Religious Preference (%)*				
Protestant	41	52	56	53
Catholic	35	34	24	32
Jew	1	3	0	0
Atheist	1	0	4	2
Agnostic	5	3	3	4
Other	17	8	13	9
College with University (%)*				
Science & Humanity	36	61	47	65
Education	4	6	5	11
Home Economics	0	16	1	11
Agriculture	26	5	16	7
Design	12	8	9	5
Engineering	23	5	21	1
Home Town Size (%)*	Spring 1980		Fall 1980	
Size up to 20	M	F	M	F
5,000	31	37	40	32
10,000	12	8	11	8
20,000	10	5	3	6
40,000	18	9	12	11
60,000	5	5	7	6
90,000	3	5	4	8
120,000	5	8	8	4
250,000	13	11	4	6
250,000 +	14	12	12	10

*Data rounded to nearest per cent.

Table 2. Correlations of selected sex education variables with behavior and attitude and knowledge variables

Spring 1980	Parent Ed		School Ed		Self Ed		Self Know		Tot Ed		HS Courses		Tot Courses	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Behavior														
Coitus	- 5	17	- 8	-10	- 1	7	- 1	.4	- 7	4	-18	- 8	2	-18
Fellatio	3	13	1	- 8	- 4	18	09	.5	4	10	7	16	- 8	-12
Cunnilingus	-29*	12	-15	-13	- 7	14	- 2	- 4	-21	6	-18	-15	.4	-10
Attitude														
Self attit.	- 4	-24*	-17	-23*	-15	18	-17	4	-22	-11	-39*	-12	-25*	- 9
CF attitude	-24*	9	-13	- 5	- 4	- 2	- 7	13	-16	4	- 7	4	- 9	15
In love att.	-23	8	-21	- 8	-15	- 2	- 4	11	-21	-.2	- 3	6	-10	14
Sex Satis.	-10	-16	-18	- 8	-17	7	-17	4	-19	- 3	- 6	- 4	- 8	5
Knowledge														
Know Anat.	-15	-26*	-20	-21	-18	8	-10	11	-26*	-16	-39*	- 2	-24*	- 7
Know Other	4	-17	-13	-22	-10	21	-19	- 1	-14	- 6	-32*	-15	-21*	- 9
Know Tot.	- 4	-24*	-18	-24*	-15	18	-17	4	-22*	-12	-39*	-12	-25*	- 9
Education														
Parent Ed					16	39*								
School Ed	40*	5			27	25								
Self Know.	18	29*	39*	8	61*	62								
Total Ed.	64*	58*	70*	51*	71*	80*	16*	56*						
HS Courses	23*	2	44*	34*	6	16	13	30*	31*	30				
Total Cours.	23*	23*	51*	34*	9	27*	23*	26*	32*	46	63*	75*		

*Data rounded to nearest ~~per cent~~ whole $p < .05$ For Tables 2-6

Table 3. Correlations of selected sex education variables with behavior, attitude, and knowledge variables

Fall 1980	Parent Ed		School Ed		Self Ed		Self Know		Tot Ed		HS Courses		Tot Courses	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Behavior														
Coitus	-23*	8	19	1	2	2	5	12	9	5	- 5	7	- 5	13
Fellatio	- 2	- 2	9	-.2	1	1	- 1	8	7	- 3	- 9	11	- 7	29*
Cunnilingus	-19	11	17	6	11	7	- 1	4	11	8	0	13	-.1	22*
Attitude														
Self attit.	23	-14	2_	6	16	25*	10	19*	17	12	19	3	36*	17
CF attitude	-14	.8	5	- 3	8	7	- 6	21*	4	4	-15	0	- 5	6
In love att.	- 6	4	14	2	16	11	10	25*	20	11	-14	2	2	5
Sex Satis.	3	- 2	26*	8	31*	- 1	44*	10	37*	8	15	2	27*	- 9
Knowledge														
Know Anat.	17	-22*	23*	21*	16	22*	7	14	18	14	4	-10	19	24*
Know Other	20	- 4	12	- 8	9	21*	9	19*	10	7	25*	- 3	36*	7
Knot Tot.	23*	-14	22	6	16	25*	10	19*	17	12	19	3	36*	16
Education														
Parent Ed					9	14								
School Ed	30*	14			31*	40*								
Self Know.	20*	14	27*	43*	62*	66*								
Total Ed.	49*	40*	70*	73*	74*	80*	63*	69*						
HS Courses	2	11	43*	41*	25*	23*	29*	20*	30*	36*				
Tot Courses	1	15	40*	35*	28*	27*	40*	23*	29*	36*	64*	64*		

*Data rounded to nearest per cent.

Table 4. Significant intercorrelations of selected sexual-behavior variables

	Males						Females					
Spring 1980	LPET	HPET	Genital Mani.	Coitus	Fellatio	Cunnil.	LPET	HPET	Genital Mani.	Coitus	Fellatio	Cunnil.
HPET	.23						.38					
Genitals Manipulated	.22	.21					--	.41				
Coitus	.34	.50	.32				--	.52	.46			
Fellatio	--	.29	.44	.36			.26	.58	.29	.53		
Cunnilingus	--	.43	.49	.65	.41		.23	53	.25	.47	.87	
Fall 1980												
HPET	.77						.52					
Genitals Manipulated	.55	.51					.43	.61				
Coitus	.32	.43	.40				.31	.44	.42			
Fellatio	--	--	.35	.32			26	.46	.48	.57		
Cunnilingus	.41	.43	.55	.52	.52		.27	.36	.39	.52	.52	

*Data rounded to nearest per cent.

Table 5. Significant intercorrelations of attitude variables

Spring 1980	Male n=78					Female n=64				
	Att Self	Att CF	Att In 1	Att Marr	Sat F	Att Self	Att CF	Att In 1	Att Marr	
Attitudes about casual friends	9					0				
Attitudes about people in love	3	84*				- 3	90*			
Attitudes about married individuals	10	86*	94*			- 5	82*	95*		
Satisfaction with current sex life	10	21	52*	45*		22	29*	41*	40*	

Fall 1980	Male n=76					Female n=132				
Attitudes about casual friends	-17					15				
Attitudes about people in love	-18	79*				9	89*			
Attitudes about married individuals	-17	81*	96*			4	82*	95		
Satisfaction with current sex life	- 8	11	39*	38*		19*	24*	37*	41*	

*Data rounded to nearest per cent.

Table 6. Correlations of attitude and behavior variables

Spring 80	Male n=78					Female n=64				
	Att Self	Att CF	Att In l	Att Marr	Sex Sat.	Att Self	Att CF	Att In l	Att Marr	Sex Sat.
Light petting	-20	12	12	13	16	7	- 1	5	4	9
Heavy petting	- 1	19	23*	25*	30*	24*	18	21	23	11
Genital manipulation of another	- 2	32*	25*	29*	17	13	4	12	18	12
Genital manipulation by another	7	25*	24*	22*	29*	5	9	19	18	-10
Coitus	- 3	31*	32*	34*	40*	0	33*	42*	46*	19
Fellatio	- 0	15	21	25*	30*	26*	29	31*	35*	15
Cunnilingus	5	37*	40*	43*	39*	25*	25*	25*	32*	13

Fall 80	Male n=76					Female n=132				
Light petting	-22*	32*	41*	41*	34*	5	7	5	4	13
Heavy petting	-23*	29*	36*	36*	27*	14	24*	27*	26*	32*
Genital manipulation of another	-19	34*	41*	42*	27*	9	14	12	11	25*
Genital manipulation by another	-24*	30*	38*	43*	42*	0	11	14	13	-32*
Coitus	-45*	52*	57*	58*	13	4	38*	44*	43*	31*
Fellatio	-25*	30*	27*	32*	16	14	19*	19*	18*	30*
Cunnilingus	-22*	34*	45*	48*	27*	5	16*	16	11	14

*Data rounded to nearest per cent.

Table 7. Percent engaging in indicated behavior*

	Spring 80		Fall 80	
	M	F	M	F
Light kissing	97	92	97	93
Heavy kissing	94	89	87	83
Light petting	95	83	84	83
Heavy petting	86	77	83	70
Genital manipulation of others	65	67	72	58
Genital manipulation by another	68	56	71	62
Coitus	68	48	64	51
Fellatio	51	55	54	53
Cunnilingus	68	48	57	48
Homosexual	5	5	8	5

*Data rounded to nearest per cent.

Table 8. Per cent holding positive attitudes for indicated behaviors for themselves, casual friends, people in love, ~~and married people~~*

	Male				Female			
Spring 80	Self	CF	IL	M	Self	CF	IL	M
Hand holding	99	85	94		95	86	97	
Deep kiss	95	53	96		91	47	97	
Heavy petting	85	27	94		73	11	95	
Mutual genital stimulation	--	22	77		--	8	72	
Coitus	77	21	74		61	5	59	
Fellatio	49	17	71		36	5	59	
Cunnilingus	50	17	69		39	3	58	
Anal intercourse	17	8	38		3	2	20	
Group sex	24	10	23		5	2	0	
Masturbation	26				25			
Fall 80								
Hand holding	84	79	89		96	84	92	
Deep kiss	88	47	89		93	39	93	
Heavy petting	83	30	83		69	11	85	
Mutual genital stimulation	--	27	74		--	6	67	
Coitus	82	25	72		59	2	56	
Fallatio	66	24	67		40	2	53	
Cunnilingus	63	14	66		42	2	53	
Anal intercourse	20	14	38		7	1	20	
Group sex	18	17	19		2	2	6	
Masturbation	37				24			

*Data rounded to nearest per cent.